

### **AMENDMENTS TO THE CLAIMS**

The listing of claims below replaces all prior versions of claims in the application.

1. (Previously Presented): A  $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$  compound, which incorporates a negative hydrogen ion ( $\text{H}^-$ ,  $\text{H}^{2-}$ ,  $\text{H}_2^-$ ) at a concentration of  $1 \times 10^{18} \text{ cm}^{-3}$  or more, which has an electronic conductance equivalent to an electric conductivity of  $10^{-5} \text{ Scm}^{-1}$  or more at a room temperature.

2. (Previously Presented): A  $12\text{SrO} \cdot 7\text{Al}_2\text{O}_3$  compound, which incorporates a negative hydrogen ion ( $\text{H}^-$ ,  $\text{H}^{2-}$ ,  $\text{H}_2^-$ ) at a concentration of  $1 \times 10^{18} \text{ cm}^{-3}$  or more, which has an electronic conductance equivalent to an electric conductivity of  $10^{-5} \text{ Scm}^{-1}$  or more at a room temperature.

3. (Previously Presented): A mixed crystal compound of  $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$  and  $12\text{SrO} \cdot 7\text{Al}_2\text{O}_3$ , which incorporates a negative hydrogen ion ( $\text{H}^-$ ,  $\text{H}^{2-}$ ,  $\text{H}_2^-$ ) at a concentration of  $1 \times 10^{18} \text{ cm}^{-3}$  or more, which has an electronic conductance equivalent to an electric conductivity of  $10^{-5} \text{ Scm}^{-1}$  or more at a room temperature.

4-6. (Cancelled).

7. (Currently Amended): A method of producing the compound as defined in ~~either one of claims 1 to 3~~ claim 1, comprising subjecting either one selected from the group consisting of a  $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$  compound, a  $12\text{SrO} \cdot 7\text{Al}_2\text{O}_3$  compound, and a mixed crystal compound of

$12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$  and  $12\text{SrO} \cdot 7\text{Al}_2\text{O}_3$  to a heat treatment at a temperature of  $800^\circ\text{C}$  or more in an atmosphere containing 1000 ppm or more of hydrogen, to thereby clathrate a negative hydrogen ion ( $\text{H}^-$ ,  $\text{H}^{2-}$ ,  $\text{H}_2^-$ ) into said selected compound at a concentration of  $1 \times 10^{18} \text{ cm}^{-3}$  or more, and further irradiate said selected compound with ultraviolet ray or X-ray.

8-11. (Cancelled).

12. (New): A method of producing the compound as defined in claim 2, comprising subjecting either one selected from the group consisting of a  $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$  compound, a  $12\text{SrO} \cdot 7\text{Al}_2\text{O}_3$  compound, and a mixed crystal compound of  $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$  and  $12\text{SrO} \cdot 7\text{Al}_2\text{O}_3$  to a heat treatment at a temperature of  $800^\circ\text{C}$  or more in an atmosphere containing 1000 ppm or more of hydrogen, to thereby clathrate a negative hydrogen ion ( $\text{H}^-$ ,  $\text{H}^{2-}$ ,  $\text{H}_2^-$ ) into said selected compound at a concentration of  $1 \times 10^{18} \text{ cm}^{-3}$  or more, and further irradiate said selected compound with ultraviolet ray or X-ray.

13. (New): A method of producing the compound as defined in claim 3, comprising subjecting either one selected from the group consisting of a  $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$  compound, a  $12\text{SrO} \cdot 7\text{Al}_2\text{O}_3$  compound, and a mixed crystal compound of  $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$  and  $12\text{SrO} \cdot 7\text{Al}_2\text{O}_3$  to a heat treatment at a temperature of  $800^\circ\text{C}$  or more in an atmosphere containing 1000 ppm or more of hydrogen, to thereby clathrate a negative hydrogen ion ( $\text{H}^-$ ,  $\text{H}^{2-}$ ,  $\text{H}_2^-$ ) into said

selected compound at a concentration of  $1 \times 10^{18} \text{ cm}^{-3}$  or more, and further irradiate said selected compound with ultraviolet ray or X-ray.

14. (New): The compound as defined in any one of claims 1 to 3, wherein the compound is included in a transparent electrode or wiring.

15. (New): The compound as defined in any one of claims 1 to 3, wherein the compound is included in an optically writable and erasable 3-dimensional electronic circuit and 3-dimensional storage element.

16. (New): The compound as defined in any one of claims 1 to 3, wherein the compound is included in a negative-hydrogen-ion-conducting solid-electrolyte.